

U.S. Patent Application Serial No. 10/781,897

REMARKS

The Office Action dated November 14, 2007 has been received and carefully considered. Claims 1-24 are pending. Claims 5 and 19 are amended. No new matter has been added.

Reconsideration of the outstanding rejections in the present application is respectfully requested based at least on the following remarks.

A. The Claim Objections

In the Office Action, claims 5 and 19 are objected to asserting a deficiency. The claims are amended in response to the asserted deficiency.

The Office Action asserts that claim 13 objected to because the relative term "sparsely" is used in the claim.

Under MPEP 2173.05(b), when a term of degree is presented in a claim, first a determination is to be made as to whether the specification provides some standard for measuring that degree. If it does not, a determination is made as to whether one of ordinary skill in the art, in view of the prior art and the status of the art, would be nevertheless reasonably apprised of the scope of the invention. Even if the specification uses the same term of degree as in the claim, a rejection may be proper if the scope of the term is not understood when read in light of the specification. While, as a general proposition, broadening modifiers are **standard tools** in claim drafting in order to avoid reliance on the doctrine of equivalents in infringement actions, when the scope of the claim is unclear a rejection under 35 U.S.C. 112, second paragraph, is proper. See *In re Wiggins*, 488 F. 2d 538, 541, 179 USPQ 421, 423 (CCPA 1973).

U.S. Patent Application Serial No. 10/781,897

Applicant respectfully submits that, in view of the prior art and the status of the art, and the specification, the one of ordinary skill in the art would be reasonably apprised of the scope of the invention and the metes and bounds of "sparsely." Applicant submits that the Office Action sets forth no basis upon which to base the asserted objection to the claim, other than the term is a relative term. Applicant submits that a term of degree is not *per se* objectionable.

Withdrawal of the objections is requested.

B. The Rejections under 35 U.S.C. §101

In the Office Action, claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Office Action asserts that claim 15 claims a user identifying the gap in the efficient frontier, the gap then being filled to supplement the efficient frontier; and that the human action involved does not obtain reproducible results and therefore fails as being concrete.

Applicant traverses such rejection. Applicant submits that the particular manner in which a human might perform the observing may not be reproducible. However, the claimed feature of a human performing the observing is indeed reproducible. Further, Applicant notes that the claim does not set forth that the user is indeed a human. Rather, the term recites a "user", which is not necessarily a human, i.e., a processing unit could be a user.

Withdrawal of the 35 U.S.C. §101 rejection is requested.

C. The Rejections under 35 U.S.C. § 102(b)

In the Office Action, claims 1-5,13-14 rejected under 35 U.S.C. 102(b) as being anticipated by Ray et al. (US Pat No. 6,018,722). This rejection is traversed.

U.S. Patent Application Serial No. 10/781,897

Regarding claim 1, the Office Action, on page 3, asserts that

Ray et al. discloses:

- Performing a first multi-objective optimization process, based on competing objectives, to generate an efficient frontier of possible solutions, (see column 4/line 66 - column 5/line 18);
- Observing the generated efficient frontier, (see column 4/line 66 - column 5/line 18);
- **Based on the observing, identifying an area of the efficient frontier in which there is a gap, (see column 6/lines 13-35);**
- Effecting a gap filling process by which the efficient frontier is supplemented in the area of the gap, the efficient frontier being used in investment decisioning, (see column 6/lines 13-35).

Applicant submits that this rejection under 35 U.S.C. 102, and the other rejections set forth in the Office Action, are deficient for various reasons, as discussed herein.

Applicant submits that Ray fails to teach various claimed features as asserted in the Office Action. In particular, Applicant submits that Ray fails to disclose the feature of "based on the observing, identifying an area of the efficient frontier in which there is a gap." To note, the **Office Action expressly acknowledges such** at page 9, lines 1-2.

In addition, it is clear that Ray fails to teach such features. Specifically, claim 1 recites "based on the observing, identifying an area of the efficient frontier in which there is a gap; and effecting a gap filling process by which the efficient frontier is supplemented in the area of the gap...". Such features are clearly and simply set forth in the claim. The cited portion of Ray fails to describe such features. At column 6, lines 13-37, Ray teaches:

Next, as is shown in FIG. 4 fundamental analysis information 420 is used to determine which specific securities exhibit superior investment characteristics based upon **information from a database** containing fundamental analysis information about each population of securities for each asset class. A database containing fundamental information may be sorted to determine which companies

U.S. Patent Application Serial No. 10/781,897

exemplify the most **favorable fundamental characteristics** for a particular investment objective. For example, companies such as ValueScreen, Zack's, and Institutional Broker Estimate System (IBES) provide such fundamental information. Fundamental characteristics are described in books such as How to Buy Stocks by Louis Engle and Brendan Boyd (Bantam), The Intelligent Investor by Benjamin Graham (Harper & Rowe) or One Up on Wall Street (Penguin) and Bearing the Street (Simon and Schuster), both by Peter Lynch, each of which is incorporated herein by reference for their teachings on fundamental analysis and fundamental characteristics.

Fundamental analysis derives investment decisions from the study of numerous forms of information about a company including, but not limited to, earnings per share, financial strength, sales, book value, dividend growth rate, etc. An example of a fundamental indicator is financial strength in which a stock or bond is rated A+, A, A-, B+, B, B-, C+ or C.sub.1-. (Emphasis added)

This disclosure of Ray clearly fails to support the assertions in the Office Action, and fails to support the rejection under 35 U.S.C. 102. For example, Applicant requests clarification of what of Ray allegedly constitutes the efficient frontier, and clarification of what of Ray allegedly constitutes the gap. Indeed, Applicant submits that Ray does not teach such features. Withdrawal of the rejection is appropriate.

Further, the various dependent claims recite parentable subject matter at least for their various dependencies on the independent claims, as well as for the additional subject matter recited in such dependent claims. Withdrawal of the 35 U.S.C. 103 rejection is appropriate.

Applicant respectfully requests withdrawal of the 35 U.S.C. 102 rejection.

D. The Rejection Based on Ray and Eklund

In the Office Action, claims 4, 6-12, and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Ray et al. in view of Eklund's paper entitled "Multi objective Visible Spectrum Optimization: A Genetic Algorithm Approach". This rejection is traversed.

U.S. Patent Application Serial No. 10/781,897

Applicant respectfully submits that the analysis, as set forth at various portions of the Office Action, is misplaced.

That is, for example, the Office Action on page 6, line 9, sets forth that "It would have been obvious to one skilled in the art at the time of invention to modify the invention of claim 6 above with Eklund." Applicant respectfully submits that such is an incorrect analysis in that claim 6 is being modified, and not the teachings of Ray. The Office Action contains various other language reflective of such incorrect analyses.

To explain, the manner in which the applied art is allegedly being combined is not clearly established as to the deficiencies of the primary reference that the various secondary art cures, i.e., under *Graham v. John Deere Co.* 383 U.S. 1 (1966).

To explain, as set forth in M.P.E.P 706.02(j), 35 U.S.C. 103 authorizes a rejection where, to meet the claim, it is necessary to modify a single reference or to combine it with one or more other references. M.P.E.P 706.02(j) indicates that after indicating that the rejection is under 35 U.S.C. 103, the Examiner should set forth in the Office Action:

(A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,

(B) the difference or differences in the claim over the applied reference(s),

(C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and

(D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

M.P.E.P 706.02(j) references the well known requirements of *Graham v. John Deere*. Further, M.P.E.P 706.02(j) notes that it is important for an Examiner to properly

U.S. Patent Application Serial No. 10/781,897

communicate the basis for a rejection so that the issues can be identified early and the Applicant can be given fair opportunity to reply.

In view of the incorrect analysis, Applicant submits that the rejection is deficient.

Further, various assertions set forth in support of the rejection are unsupported.

For example, the Office Action on page 6, line 7, asserts that:

Eklund teaches wherein the method further includes placing targets in the area of the gaps, (see page 90, second paragraph)

Applicant has reviewed such teachings of Eklund. Applicant respectfully submits that such teachings of Eklund do not appear to support the assertions in the Office Action. The Examiner is requested to clarify what of Eklund constitutes the alleged gaps, for example.

In general, Applicant respectfully submits that Eklund fails to cure the deficiencies of Ray, as such are discussed above.

Further, the various dependent claims recite parentable subject matter at least for their various dependencies on the independent claims, as well as for the additional subject matter recited in such dependent claims. Withdrawal of the 35 U.S.C. 103 rejection is appropriate.

E. The further 35 U.S.C. 103 Rejections

In the Office Action, claims 15-16, 19, and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Ray et al. in view of Champion et al. (US Pat. No. 5,126,936). Further, claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ray et al.

U.S. Patent Application Serial No. 10/781,897

in view of Champion, and further in view of Official Notice. Also, in the Office Action, claims 18 and 20-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Ray in view of Champion and further in view of Eklund. These rejections are traversed.

Applicant submits that such rejections are deficient for at least some of the reasons set forth above.

In addition, for example, the Office Action asserts that Ray teaches the claimed "gap filling portion" (see Office Action page 8, last paragraph). The Office Action relies on Ray's teachings in column 6, lines 13-35, discussed above. Applicant submits that such assertions regarding the teachings of Ray are unsupported. Applicant respectfully submits that Ray fails to teach such alleged "gap portion". The Examiner is requested to clarify what of Ray allegedly teaches such gap portion.

Further and relatedly, Applicant submits that Ray fails to teach the claimed efficient frontier generation portion. Applicant notes that Ray does indeed teach asset allocation and segmentation, but submits that Ray fails to teach the claimed efficient frontier generation portion, as well as the claimed particulars associated therewith. Indeed, in paragraph 11, the Office Action asserts that it would have been obvious to present the efficient frontier to the user in a numerical data format. However, Applicant asserts that it is not possible to ascertain whether such would have been obvious, in that Ray, in contrast to the assertions in the Office Action, fails to teach the efficient frontier to be modified.

Lastly, on page 9, the Office Action asserts, and bases the rejection on, that

Champion et al. discloses based on the observing, the user identifying an area of the efficient frontier in which there is a gap, (see column 4, lines 3-21)

U.S. Patent Application Serial No. 10/781,897

Applicant respectfully submits that Champion fails to set forth the alleged teachings of an efficient frontier or gap. Applicant request the Examiner to clarify the manner in which Champion teaches such features.

Further, the various dependent claims recite patentable subject matter at least for their various dependencies on the independent claims, as well as for the additional subject matter recited in such dependent claims. Withdrawal of the 35 U.S.C. 103 rejection is appropriate.

For at least the reasons set forth above, Applicant submits that the various applied art fails to teach the claimed invention, as recited. Withdrawal of the 35 U.S.C. 103 rejections is requested.

F. Conclusion

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for extensions of time under 37 CFR § 1.136 is hereby made.

U.S. Patent Application Serial No. 10/781,897

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

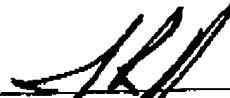
Respectfully submitted,

HUNTON & WILLIAMS LLP

Date:

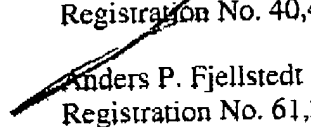
2/14/2008

By:



James R. Miner

Registration No. 40,444


Anders P. Fjellstedt

Registration No. 61,311

Hunton & Williams LLP
1900 K Street, N.W., Suite 1200
Washington, D.C. 20006-1109
(202) 955-1500 (Telephone)
(202) 778-2201 (Facsimile)

AD/PTO2.14.08